

AMENDMENTS TO CLAIMS

1. (cancelled)

2. (currently amended): An electronic printing apparatus which receives and prints image data, comprising:

a print controller for receiving said image data and controlling a printing sequence, said print controller including an image-processing dedicated control circuit having an image memory for temporarily storing said image data; and

a print engine for printing an image on a predetermined printing medium in accordance with a drive signal corresponding to said image data supplied by said print controller;

wherein said print controller includes a normal operating mode and a power saving mode in which less power is required than required in said normal operating mode; and

wherein, in said normal operating mode, said print controller temporarily stores said image data in said image memory, and wherein in said power saving mode, said print controller stores in said image memory a recovery program to be used to return to said normal operating mode.

3. (currently amended): An electronic printing apparatus according to claim 2, wherein said print controller further includes:

a CPU for executing a required program;

an interface circuit for receiving said image data and an interrupt;

a program memory in which sequence program for controlling said printing sequence and said recovery program are stored; and

a band memory in which image data to be printed are stored; and

~~a wherein said image-processing dedicated~~ control circuit that is connected to said CPU, said interface circuit, and said program memory and said image memory, ~~and incorporates said image memory,~~

wherein said normal operating mode is shifted to said power saving mode, said recovery program in said program memory is loaded to said image memory within said control circuit, and

wherein, in said power saving mode, said control circuit and said interface circuit are maintained in the normal operating state, while the remainder of electronic parts are shifted to the power saving state.

4. (original): An electronic printing apparatus according to claim 2, wherein an interface control program for controlling said interface circuit is stored in said program memory, wherein, when said normal operating mode is shifted to said power saving mode, said interface circuit is stored in said image memory, and wherein, in said power saving mode, said interface control program is executed in response to said interrupt received by said interface circuit.

5. (original): An electronic printing apparatus according to claim 2, wherein, when recovery to said normal operating mode of said electronic parts in said power saving mode is effected, part or all of said electronic parts, including said program memory and said band memory in said power saving state, are returned to the normal state by executing said control program.

6. (currently amended): An electronic printing apparatus which receives and prints image data comprising:

a print controller for receiving said image data and for controlling a printing sequence; and

a print engine for printing an image on a predetermined printing medium in accordance with a drive signal that corresponds to said image data supplied by said print controller,

wherein said print controller comprises:

an image-processing dedicated control circuit having an image memory for temporarily storing said image data;

an interface circuit for receiving said image data; and

a CPU for executing a program for said printing sequence, and

wherein said print controller has a power saving mode during which said interface circuit is and said control circuit are maintained in a normal operating state, while said CPU enters a power saving state.

7. (currently amended): An-A method for controlling an electronic printing apparatus comprising steps of:

permitting a CPU, when a normal operating mode is shifted to a power saving mode, to load a recovery program stored in a program memory into an image memory within an image-processing dedicated control circuit; and

maintaining a the control circuit and an interface circuit in a normal operating state, while part or all of the remainder of electronic parts enters enter a power saving state.

8. (currently amended): A method for controlling an electronic printing apparatus comprising steps of:

effecting a recovery of a CPU from a power saving state when shifting from a power saving mode to a normal operating mode following receipt of an interrupt originating at an interface circuit and a an image-processing dedicated control circuit;

permitting said recovered CPU to execute a recovery program stored in an image memory within said control circuit; and

shifting all or part of electronic parts that are in the power saving mode to a normal operating state by execution of said recovery program.

9. (currently amended): A method for controlling an electronic printing apparatus comprising steps of:

permitting a CPU to load a recovery program stored in a program memory into an image memory within an image-processing dedicated control circuit;

maintaining a-said control circuit and an interface circuit in a normal operating state, while part or all of the remainder of electronic parts enters a power saving state;

effecting a recovery of a CPU from the power saving state when a power saving mode is shifted to a normal operating mode upon receipt of an interrupt originating at an-said interface circuit and a-said control circuit;

permitting said recovered CPU, to execute a-said recovery program stored in an-said image memory; and

shifting part or all of electronic parts that are in the power saving mode to the normal operating state by execution of said recovery program.

10. (new): The electric printing apparatus according to claim 2, wherein the control circuit is an application specific integrated circuit, and the memory is SRAM.

11. (new): The electric printing apparatus according to claim 6, wherein the control circuit is an application specific integrated circuit, and the memory is SRAM.

12. (new): The electric printing apparatus according to claim 6,
wherein the print controller includes an band memory in which the image data are stored,
and
wherein in the power saving mode, the band memory enters the power saving state.